



# Clearing Permit Decision Report

## 1. Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9523/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Lovegrove Investments Pty Ltd
<b>Application received:</b>	14 December 2021
<b>Application area:</b>	2.36 hectares of native vegetation
<b>Purpose of clearing:</b>	Grazing and pasture
<b>Method of clearing:</b>	Mechanical removal
<b>Property:</b>	Lot 500 on Deposited Plan 302681
<b>Location (LGA area):</b>	Shire of Waroona
<b>Localities (suburb):</b>	Waroona

### 1.2. Description of clearing activities

The proposed clearing of approximately 2.36 hectares of native vegetation is contained within a single contiguous area (see Figure 1, Section 1.5), within Lot 500 on Deposited Plan 302681, for the purpose of establishing pasture for grazing.

During the assessment, the application area was reduced from approximately 5.95 to 3.88 hectares to remove non-native trees and potential black cockatoo habitat trees (trees with diameter at breast height (DBH) greater than 50 cm). On 2 November 2023, officers from the Department of Water and Environmental Regulation (DWER) conducted a site inspection, following which the applicant advised that any suitable black cockatoo foraging habitat within the application area would be retained and that the clearing would only involve the removal of *Kunzea glabrescens*, along with dead standing vegetation. The commitment to retain suitable black cockatoo foraging habitat further reduced the amount of proposed clearing to 2.36 hectares.

### 1.3. Decision on application

<b>Decision:</b>	Refused
<b>Decision date:</b>	24 June 2024
<b>Decision area:</b>	2.36 hectares of native vegetation, as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). DWER advertised the application for 21 days and two (2) submissions were received. Matters raised in the submissions are summarised in Appendix B.

In making this decision, the Delegated Officer had regard for the:

- supporting information supplied by the applicant (see Appendix A);
- site characteristics (see Appendix C);

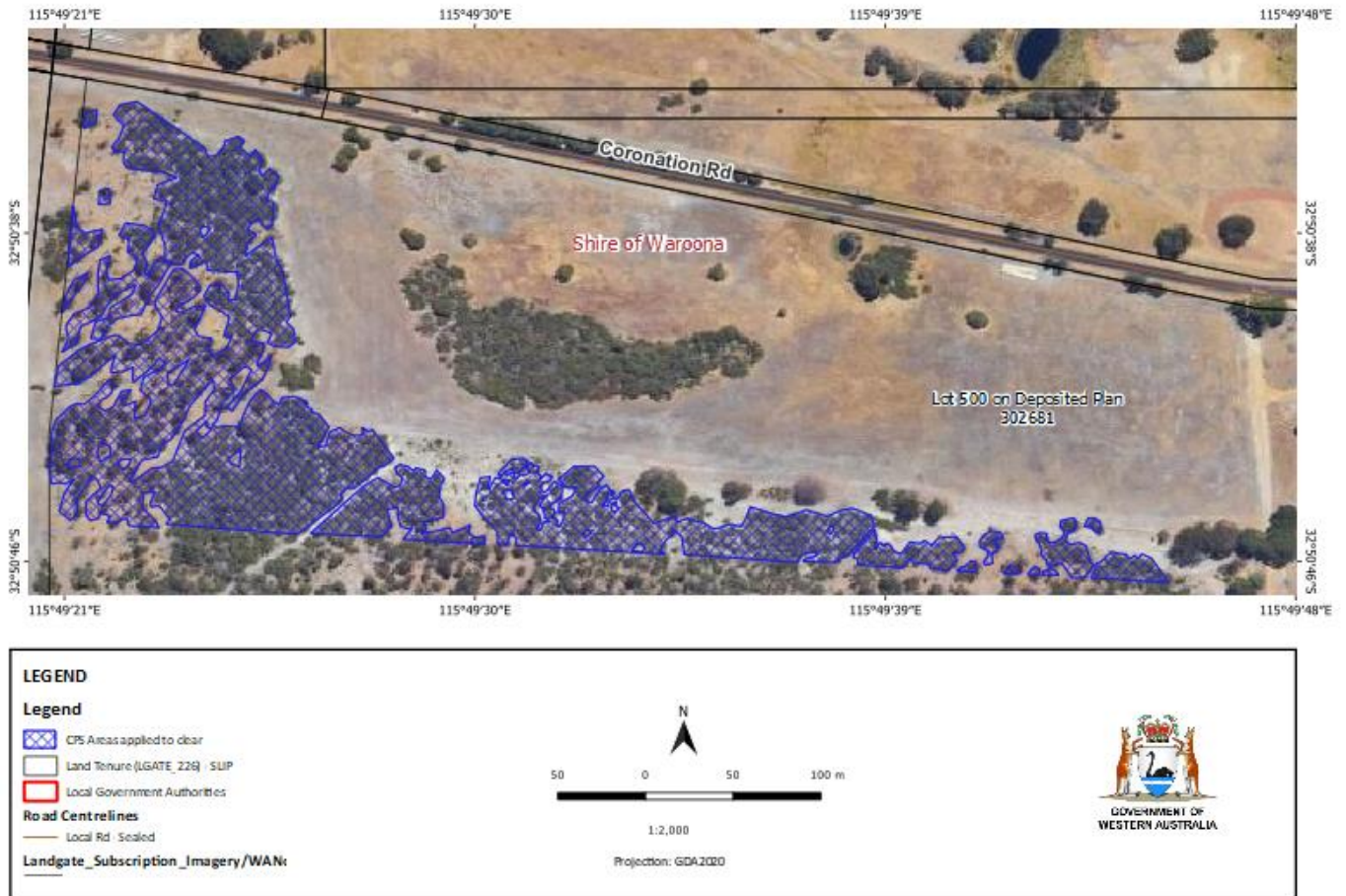
- relevant datasets (see Appendix H.1);
- the findings of an environmental assessment report (Accendo, 2021), vegetation survey (Plantecology, 2023) and black cockatoo assessment (Harewood, 2022) (see Appendix F);
- observations from a site inspection conducted by DWER officer's (see Appendix G);
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix D); and
- relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). Consideration of planning instruments and other relevant matters when making a decision on a clearing permit application is a requirement under section 51O(4) of the EP Act.

The Delegated Officer also noted the Shire of Waroona's (the Shire) advice that the proposed activities require planning approvals under the Shire's local town planning scheme (Shire of Waroona, 2022 & 2023). To date, the applicant has not obtained a valid Development Approval (DA) for the clearing of native vegetation and associated works. The Delegated Officer determined that the absence of a valid DA from the Shire is a relevant consideration as if no approval is obtained, there would be no reason for the clearing to occur.

The Delegated Officer noted that these planning matters remain unresolved and that Lovegrove Investments has not provided the Department with a clear timeline as to when a DA may be obtained. Furthermore, the Delegated Officer noted that as of 8 March 2024, the Shire of Waroona had confirmed to the Department that the Applicant had not submitted a Development Application, and in subsequently responding to the Department's notice advising that it intended to refuse the application, the Applicant provided no further update regarding any lodgement of a Development Application with the Shire. The Delegated Officer considered that the applicant has been afforded a reasonable amount of time to obtain the required approvals and was of the view that the Department is unable to hold the application indefinitely.

Accordingly, the Delegated Officer determined to refuse to grant a clearing permit. In the absence of the above planning approvals, it would be unnecessarily harmful to the environment for the Department to authorise the clearing of native vegetation when such clearing may not be required.

## 1.5. Site map



**Figure 1** - Map of the application area. The area cross-hatched blue indicates the areas proposed to be cleared.

## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the polluter pays principle
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Rights in Water and Irrigation Act 1914*
- *Soil and Land Conservation Act 1945* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016a)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016b)

### 3. Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

The following avoidance and mitigation measures have been committed to by the applicant:

- the clearing area has been designed to minimise clearing where possible;
- the application area has been selected to target areas of the most degraded vegetation within the property;
- Environmental Management Plans have been developed by the applicant, which includes measures for relevant fauna, vegetation and flora, weed and pathogens (Accendo, 2021).

On 27 July 2023, a meeting was held between DWER and the applicant, following which the applicant reduced the application area from approximately 5.95 hectares to 3.88 hectares. In addition, the applicant advised that they would retain nine black cockatoo habitat trees that were previously within the original application area.

The application area was further reduced following a DWER site inspection conducted on 2 November 2023, whereby the applicant committed to the retention of suitable foraging habitat (*Allocasuarina fraseriana*, *Banksia ilicifolia*, *Banksia attenuata* and *Eucalyptus marginata*) within the revised application area.

After consideration of avoidance and mitigation measures, it was determined that further mitigation measures were required to counterbalance the significant residual impacts to remnant native vegetation. To mitigate the loss of 2.36 hectares of native vegetation in an extensively cleared landscape, the applicant committed to revegetation within Lot 500 on Deposited Plan 302681, however, no formal revegetation plan has been received by the Department.

#### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix C) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix D) identified that the impacts of the proposed clearing may present a risk to the biological values (fauna habitat, flora and vegetation), significant remnant vegetation and land and water resources, as set out below.

##### 3.2.1. Biological values (Fauna) - Clearing Principle (b)

###### **Assessment:**

According to available databases, 11 conservation significant fauna species have been recorded within the local area (10-kilometre radius of the application area). A number of these records are associated with marine, estuarine or freshwater habitats that do not occur within the application area. Based on these records and vegetation identified during the surveys (Harewood, 2022 & Plantecology, 2023), the following species are considered to have suitable habitat within the proposed clearing area:

- *Zanda latirostris* (Carnaby's cockatoo) (EN);
- *Zanda baudinii* (Baudin's cockatoo) (EN);
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) (VU);
- *Isodon fusciventer* (Quenda) (P4); and
- *Notamacropus Irma* (Western Brush Wallaby) (P4)

###### **Black cockatoos**

The application area occurs within the known distribution range of Baudin's black cockatoo, Carnaby's black cockatoo and the forest red-tailed black cockatoo. Habitat requirements for each species differ but can generally be categorised as foraging, breeding and night roosting habitat. The Swan Coastal Plain is primarily used by black cockatoos for foraging resources, with some remnant vegetation suitable for breeding.

###### Breeding Habitat

Breeding black cockatoos generally forage within a 6 to 12 kilometre radius of their nesting site (Commonwealth of Australia, 2012). There are 31 confirmed and three potential white tailed black cockatoo breeding sites within 12 kilometres of the application area, with the closest confirmed breeding site located around 9.4 kilometres from the application area.

Black cockatoos generally breed in woodland or forest but may also breed in former woodland or forest now present as isolated trees (Commonwealth of Australia, 2022). They commonly breed in several different tree species, including jarrah and marri, which are utilised by all three species. Suitable breeding habitat for black cockatoos

includes trees which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species a suitable DBH is 500 millimetres (Commonwealth of Australia, 2022).

The black cockatoo assessment identified 12 trees; four 4 *Eucalyptus rudis* (Flooded Gum), three *Eucalyptus marginata* (Jarrah), three unknown *Eucalyptus* sp. and two dead (unidentified *Eucalyptus* sp.) within the original application area, with a DBH of greater than 500 millimetres (Harewood, 2022). Over half (seven) of these trees appeared to not contain hollows of any size. A total of five trees contained apparent or obvious hollows, all of which were assessed as being unlikely to be suitable for black cockatoos to currently use for nesting purposes, due to the hollows apparent small size, unsuitable orientation and/or height above ground level (Harewood, 2022).

The Applicant advised the Department that they will retain nine black cockatoo habitat trees that were in the original application area, which have since been removed from the revised application area. These trees included four *Eucalyptus rudis*, three *Eucalyptus marginata* and three unknown *Eucalyptus* sp. The revised application area was also reduced from 5.95 hectares to 3.88 hectares.

It is noted that three trees (waypoints WPT008 – Jarrah; WPT013 – Dead Jarrah and WPT014 – Jarrah), which have a DBH greater than 500 millimetres remain within the application area, however, have been assessed as not having suitable hollows for black cockatoos (Harewood, 2022). Given the lack of current suitably sized breeding hollows within the application area, the proposed clearing is unlikely to impact on significant breeding habitat for black cockatoos at this point in time.

#### Roosting Habitat

Night-roosts are usually located in the tallest trees of an area, and in close proximity to both a food supply and a water source (DAWE, 2022). There are four roost sites within the 12-kilometre radius of the application area. The closest known Carnaby's black cockatoo and forest red-tailed black cockatoo roost sites are around 9.54 kilometres and 10.30 kilometres from the application area respectively. The closest known Baudin's cockatoo roosting site is not known, given the lack of available data relating to confirmed roosting records for this species.

The black cockatoo assessment identified no evidence of black cockatoos roosting within trees located within the survey area during the survey period (noted to be undertaken during the daytime) (Harewood, 2022). Harewood advised it is difficult to determine if trees or groves of trees within the survey area represent potential roosting habitat as a range of factors, not all of which can be observed, are used to determine suitability. Some of the larger trees may be suitable for roosting, but as indicated no actual evidence of use was seen (Harewood, 2022).

Suitable black cockatoo roost habitat is generally in or near riparian environments, or other permanent water sources. There are several wetlands mapped within 12 kilometres, including intersecting with a multiple use wetland and nearby a resource enhancement wetland, located approximately 30 metres north-east of the application area.

According to DoEE (2012; 2017), Carnaby's black cockatoos utilise *Eucalyptus marginata* (Jarrah) and forest red-tailed black cockatoo utilise *Eucalyptus grandis* (Flooded Gum) trees to roost in. Both species of the trees are found within the application area and have a DBH of greater than 500 millimetres (Harewood, 2022), which may provide suitable roosting habitat for black cockatoos.

#### Foraging habitat

Black cockatoo species are noted to forage on a range of plant species, with the primary foraging resources varying between species (Commonwealth of Australia, 2012). Carnaby's cockatoos forage on the seeds, nuts, and flowers of a variety of plants, including Proteaceous species (*Banksia*, *Hakea* and *Grevillea* spp.), as well as *Allocasuarina* and *Eucalyptus* species, marri and a range of introduced species (Valentine and Stock, 2008). Forest red-tailed black cockatoos feed predominantly on the seeds of marri and jarrah, which comprise approximately 90 per cent of their diet (DEC, 2008). Baudin's cockatoos prefer foraging within eucalypt woodlands and forest, and proteaceous woodland and heath. Its diet consists mainly of seeds from marri, but Baudin's also feed on various *Banksia* species, *Hakea* species, jarrah, and occasionally insects and insect larvae (DBCA, 2017).

From the detailed flora and vegetation survey conducted by Plantecology on 8 October 2022, the survey identified that the application area comprises of three main vegetation types within the application area include *Kunzea glabrescens* (spearwood), Tall Shrubland (containing *Banksia ilicifolia* (Holly Banksia), *Allocasuarina fraseriana* (Sheoak) - *Banksia attenuata* (Slender Banksia) Woodland and *Eucalyptus marginata* (Jarrah) - *Banksia attenuata* Woodland (Plantecology, 2023). Additionally, the Black Cockatoo Habitat Assessment (Harewood, 2022) found evidence of black cockatoo foraging within the application area, in the form of chewed fruits from a Sheoak and chewed *Banksia* cones (Appendix F).

Based on the above, the application area contains preferred primary and secondary foraging species for black cockatoo species totalling approximately 1.52 hectares of significant foraging habitat (DBCA, 2023). DBCA (2023) advised that the site provides foraging resources for black cockatoo throughout the year, noting breeding is recorded within 12 kilometres of the proposed application area.

Food resources within the range of breeding sites are important to sustain black cockatoo populations. Foraging resources are therefore, viewed in the context of known breeding and night roosting sites. It is considered that foraging habitat within 6 to 12 kilometres of an application area are a significant food source (DAWE, 2022). According to the available databases, there are 34 'White-tailed Black Cockatoo' breeding hollows, and five known roosts, have been recorded within 12 kilometres (that is, foraging distance) of the application area. Foraging habitat is critical to support these roosting and breeding populations, and less than 10 per cent of the original native vegetation extent has been retained in the local area.

Food resources within the range of roost sites are also important to sustain populations of black cockatoos, and foraging resources should therefore be viewed in the context of the proximity to known night roosting sites (Commonwealth of Australia, 2017). Specifically, night roosting sites need suitable foraging habitat and water within six kilometres (EPA, 2019). Overlapping foraging ranges within 12 kilometres also support roosting sites and maintain habitat connectivity and movement across the landscape (EPA, 2019). While there are no known roost sites within six kilometres, there are five within 12 kilometres of the application area.

Therefore, due to the proposed clearing within an extensively cleared landscape and in the known foraging distance of breeding hollows, the application area comprises foraging resources which have potential to support a breeding population and is therefore considered to be significant (DBCA, 2023).

Following a site inspection on 2 November 2023, the applicant advised of their intention to only clear the spearwood (historic and emergent regrowth) and dead standing vegetation. The applicant advised that all suitable foraging habitat (including *Banksia ilicifolia*, *Banksia attenuata*, *Allocasuarina fraseriana* and *Eucalyptus marginata*) for the black cockatoos would be retained within the application area.

#### **Other Species - Ground-dwelling fauna**

From a review of the database records and habitat preferences, it was determined during the likelihood analysis that the vegetation type within the application area may provide suitable habitat for *Isoodon fusciventer* (Quenda) and *Notamacropus Irma* (Western Brush Wallaby), both listed as Priority 4 under BC Act.

Quenda require access to areas of native bushland, damp soils such as wetlands and low, dense vegetation (can be exotic vegetation) for foraging habitat and shelter from predators (Bamford & Bamford 1994; Gibson et al. 2004; Wilson et al. 2010). According to available databases, a total of 31 records of quenda occur within the local area with the closest record 0.74 kilometres from the application area. Given the application area contains remnant scattered jarrah within a woodland environment, it is likely to contain suitable habitat for quenda.

A DWER site inspection undertaken on 2 November 2023 observed what was thought to be quenda scats. DBCA (2023) advised that the application area has previously been mapped as core quenda habitat in the Swan Region. It should be noted that although the vegetation within the application area has been recorded as degraded, these areas can still provide adequate quenda habitat.

The western brush wallaby is usually associated with tall open forests or woodlands that are seasonally damp with low grasses and open scrub. According to available databases, two records occur within the local area, 2.74 kilometres from the application. Some vegetation in the application area may be used for western brush wallaby's dispersal, however the application area is unlikely to provide significant habitat for this species.

Noting the lack of dense riparian habitat (discussed below in 3.2.4) (Plantecology, 2023; Harewood, 2022), the application area is not likely to include significant habitat for the western brush wallaby. The significance of any impact on habitat for other fauna species has also decreased by the reduction of the application size. However, these species may transiently visit the site, and individuals may be impacted should they occur at the time of clearing.

#### **Ecological Linkage**

The application area forms part of a larger (but now highly cleared) patch of remnant vegetation, which contributes to regional and local ecological linkage values. The clearing of the application area may further act to sever the ecological linkage corridor.

In particular, the proposed clearing is mapped in proximity to an axis line from the South West Regional Ecological Linkages (SWREL) dataset. Ecological linkage axis lines are used to identify the whole of patches of remnant

vegetation that have edges which touch or come is close proximity of the linkage. Having used the ecological linkage axis line to identify patches of remnant vegetation with connectivity or linkage values, value can be identified and assigned (in consideration of other conservation planning initiatives and values) (Molloy et al, 2009).

Remnant vegetation within the SWREL boundary can be assigned a 'proximity analysis' group. The remnant vegetation within the application area has a link to a regional axis line but with an approximate 500 metre gap, that has stepping stone patches of other remnants in between. The application area has consequently been assigned a proximity value of 2(a) in the SWREL Report (Molloy et al, 2009).

Whilst the application area has been reduced in order to not sever the linkage corridor, the reduction in vegetation (especially width wise) and edge effect of continued clearing will in the long-term impact negatively on the viability and resilience of the vegetation corridor. Over time the edge effect of proposed land use (pasture and grazing) may lead to the further loss of the integrity of the ecological linkage.

### **Conclusion:**

Based on the above assessment, and mitigation measures provided by the applicant, the Delegated Officer has considered the potential impacts of the proposed clearing on threatened species of black cockatoos can be managed through the retention of black cockatoo foraging habitat and impacts to ground-dwelling fauna can be managed through implementing slow-directional clearing to allow fauna to disperse.

To manage potential impacts to the ecological linkage values, a revegetation offset is required. The applicant advised that they were committed to undergoing revegetation within the property, however, no formal revegetation plan has been received by the Department.

### **3.2.2. Biological values (ecological communities) - Clearing Principles (a) and (d)**

#### **Assessment:**

The Banksia Dominated Woodlands of the Swan Coastal Plain Ecological Community, listed as Priority 3 by DBCA and an Endangered Threatened Ecological Community (TEC) under the EPBC Act has been mapped over the application area. This ecological community has undergone a decline of about 60 per cent in its original extent and most of the community that remains, occurs as highly fragmented patches less than 10 hectares in size (DoE, 2016).

This ecological community has a dominant Banksia component, which includes at least one of four key species - *Banksia attenuata*, *B. menziesii*, *B. prionotes* and/or *B. ilicifolia* (DoE, 2016). The ecological community provides habitat for many native flora and fauna reliant on Banksia Woodland. Remaining patches of the ecological community provide important wildlife corridors and refuges in a mostly fragmented landscape (DoE, 2016).

The Flora and Vegetation Survey (Plantecology, 2023) identified three vegetation types over the application area, which include:

- *Allocasuarina fraseriana* – *Banksia attenuata* Woodland (Plate 1) Woodland of *Allocasuarina fraseriana* and *Banksia attenuata* over a grassland of pasture species including *\*Bromus diandrus* and *\*Ehrharta longiflora* on grey sands;
- *Eucalyptus marginata* – *Banksia attenuata* Woodland (Plates 2 and 3) Woodland of *Eucalyptus marginata*, *Banksia attenuata* and *Allocasuarina fraseriana* over an open shrubland of *Xylomelum occidentale* and *Leucopogon australis* over a grassland of pasture species including *\*Ehrharta longiflora* and *\*Briza maxima* on grey sands; and
- *Kunzea glabrescens* Tall Shrubland (Plate 5) Tall shrubland of *Kunzea glabrescens* with emergent *Banksia ilicifolia* and *Nuytsia floribunda* over a grassland of *\*Ehrharta longiflora* on grey sands.

Based on information obtained from the Flora and Vegetation Survey, there are some similarities between the *Eucalyptus marginata* – *Banksia attenuata* Woodland and the Commonwealth-listed TEC 'Banksia-dominated woodlands of the Swan Coastal Plain IBRA Region' (Plantecology, 2023). However, to be considered part of this TEC, the vegetation needs to be rated as in the 'Good' or higher category of vegetation condition to be representative of the TEC.

The vegetation types listed above are rated as 'Completely Degraded' to 'Good' (Keighery, 1994) condition. DWER has assessed that the "good" vegetation condition patch sizes would not be in accordance with the minimum patch size of the Banksia Woodlands TEC conservation advice (DoE, 2016) i.e. the good condition patch size needs to be a minimum of 2 hectares to be classified representative of the TEC, which is absent in the application area. Therefore, the vegetation within the application area is not considered a part of the 'Banksia-dominated woodlands of the Swan Coastal Plain IBRA Region' TEC.

**Conclusion:**

The proposed clearing area is not likely to be representative of a threatened or priority ecological community. However, a weed and dieback condition will be required on the permit to mitigate the risk of impacts to remaining and adjacent native vegetation.

**3.2.3. Significant remnant vegetation - Clearing Principles (e)****Assessment:**

The national objectives and targets for biodiversity conservation in Australia has a target to prevent the clearance of ecological communities with an extent below 30 per cent of that present prior to the year 1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The current vegetation extent within the local area falls below the 30 per cent threshold (see Appendix C.2).

The proposed clearing area is mapped within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion which retains 38.6 per cent of its pre-European vegetation extent. The extent of the mapped vegetation complex and native vegetation in the local area is less than the national objectives and targets for biodiversity conservation in Australia, with the Southern River Complex (42) retaining 18.43 per cent and 9.28 per cent of remnant native vegetation has been retained in the local area (10-kilometre radius).

The Southern River Complex is described as open woodland of *Corymbia calophylla* (Marri), *Eucalyptus marginata* (Jarrah) and *Banksia* species with fringing woodland of *Eucalyptus rudis* (Flooded Gum), and *Melaleuca raphiophylla* (Swamp Paperbark) along creek beds (Heddl et al, 1980). From a DWER site inspection on 2 November 2023, a DWER botanist described the application area to be predominantly *Kunzea* thicket with occasional *Banksia* and *Allocasuarina* in the southern section, with more dominant *Banksia* and *Allocasuarina* in the western section (DWER, 2023b). As such, the application area is not representative of the Southern River Complex.

Based on the above, while the application area is not representative of the mapped vegetation complex, the percentage remnant vegetation in the local area means that the application is also below the 30 per cent threshold. It is considered that any loss of native vegetation within an extensively cleared landscape constitutes a significant residual impact. The applicant has committed to revegetating an area to counterbalance the impact from the clearing.

**Conclusion:**

The proposed clearing will result in the loss of approximately 2.36 hectares of extensively cleared vegetation in the landscape and which may function as an ecological linkage enabling fauna to move between areas of remnant vegetation. The applicant's commitment to replant native vegetation within the property would mitigate any impacts to the extent of remaining vegetation within the local area, however, no formal revegetation plan has been received by the Department.

**3.2.4. Land and water resources - Clearing Principles (f) and (i)****Assessment:**

According to available databases, a portion of the application area is mapped as a multiple-use wetland (MUW) with the Unique Feature Identifier (UFI) 15231 which is characterised as a palusplain. Additionally, a resource enhancement wetland (REW) sumpland (UFI-4806) is mapped approximately 60 metres away from the application area. Therefore, the application area contains vegetation growing in, or in association with, an environment associated with a watercourse.

Multiple use category wetlands are wetlands with few important ecological attributes and functions remaining. Use, development and management should be considered in the context of ecologically sustainable development and best management practice catchment planning through landcare. All reasonable management measures should be taken to retain the wetland's hydrological function (Water and Rivers Commission, 2001).

Advice received from DBCA states that the clearing of vegetation intersecting palusplain UFI-15231 appears to be minimal, however it is on the periphery of the wetland edge and on the interface of the *Eucalyptus marginata* (Jarrah) – *Banksia attenuata* woodland. The wetland vegetation proposed for clearing is likely acting as a protective buffer to the Jarrah-Banksia woodland reducing the risk of edge effects such as weed and dieback spread into the woodland (DBCA, 2023). DBCA advise that the palusplain UFI-15231 is large in size (approximately 30,500 metres cubed in size), which has previously been extensively cleared within the property, therefore the wetland vegetation comprising of palusplain UFI-15231 proposed to be cleared is unlikely to have a significant impact on the current wetland values (DBCA, 2023).



Resource enhancement wetlands are wetlands which have been partly modified but still support substantial functions and attributes. Management priorities for REW are to restore wetlands through the maintenance and enhancement of wetland functions (Water and Rivers Commission, 2001).

DBCA advised that the sumpland (UFI-4806) may be impacted as a result of the proposed clearing, due to the small size of the remaining wetland vegetation existing in an already highly fragmented landscape. The clearing may further increase the risk of weed and dieback invasion and thus displace the values of the limited existing wetland vegetation and as such should be protected with a 30-metre buffer around it (DBCA, 2023). To further protect the wetland, it was recommended that it should be fenced off, which was agreed to by the applicant (DWER, 2023b). Additionally, the applicant has advised that no groundwater and surface water extraction will be occurring on the premises (DWER, 2023a), therefore, it is unlikely that groundwater or surface water will be impacted upon.

#### **Conclusion:**

Based on the above assessment, the Delegated Officer has determined that the proposed clearing may impact on the REW within the property. The applicant had committed to not conducting clearing within 30 metres of the REW and to fence the REW to prevent livestock grazing.

### **3.2.5. Land and water resources - Clearing Principles (g)**

#### **Assessment:**

The application area is located on Bassendean soil-landscape system (Map Unit212Bs\_1), which is described as extremely low to very low relief dunes. Undulating sandplain and discrete sand rises with deep bleached grey sometimes with a pale-yellow B horizon or a weak iron-organic hardpan at depths generally greater than two (2) metres. 85 percent of the soil-landscape system has a low capability for the proposed land use (CSLC, 2022).

Advice from the Commissioner of Soil and Land Conservation's (CSLC) site inspection report is that although the Bassendean soil-landscape system has a high risk of eutrophication, acidification and wind erosion if cleared of vegetation, that significant change is unlikely as the irrigated pasture is for livestock grazing, which requires low fertiliser inputs and that if the application area maintains full pasture cover at all times (CSLC, 2022). DWER notes that an improved water source has been installed on the property and the nutrient requirement of kikuyu pasture is low, and its success is based on water supply.

The applicant has committed to ensure that immediately following clearing activities, seeding and establishment of pasture should commence, within their Vegetation and Flora Management plan (Accendo, 2021).

#### **Conclusion:**

The risk of eutrophication, wind erosion and acidification causing land degradation is low. Significant change is unlikely as the nutrient requirement of kikuyu pasture is low, a full kikuyu pasture cover should be maintained on the property and minimal disturbance to establish the kikuyu pasture within the application area.

### **3.3. Relevant planning instruments and other matters**

#### **Local Government Approvals – Shire of Waroona**

Advice received from the Shire of Waroona (the Shire) indicated that they do not generally support the clearing of native vegetation within the Shire for pasture and that the amount of clearing requested would require assessment by the Shire under the local planning scheme through a Development Application (Shire of Waroona, 2022). The Shire has further advised that the purpose of the clearing also requires a planning approval to be issued, due to there being a works component (Shire of Waroona, 2023b). The Shire advise that the proposal is also inconsistent with the objectives and provisions of the below (Shire of Waroona, 2023):

- State Planning Policy (SPP) No.2.0 – Environment and Natural Resources Policy (2003),
- the current SPP No.2.1 and future SPP No.2.9 – Planning for water and
- SPP No.2.5 - Agricultural and Rural Land Use Planning (2002) (Shire of Waroona, 2022).

In addition, the Shire is also guided by the environmental principle in the *State Planning Strategy (1997)*, to protect and enhance the key natural and cultural assets of the State (Shire of Waroona, 2022).

As above, the Shire has advised that this application is not consistent with the aims and provisions of *Local Planning Scheme (No. 7)*, as the proposal will not protect remnant vegetation, will not enhance the water quality of the Peel-Harvey Estuary catchment, it will result in the destruction of remnant landscapes that are valued by first nations people and the broader community, and will contribute to a cumulative loss of native vegetation (Shire of Waroona, 2023).

In addition, the proposal to clear remnant vegetation and substantially modify the natural landform within the Peel-Harvey catchment is not supported under the *Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992* and will likely have an effect on the water quality (Shire of Waroona, 2022). The Shire advises that the property's vegetated area is important for black cockatoos foraging and nesting and that the clearing of this would have an unacceptable impact on the species. Deep-rooted perennial species, such as remnant vegetation, assist in filtering surface and sub-surface water. This function is important for nearby wetlands and the Peel-Harvey Catchment. Clearing this vegetation would reduce the catchment's capacity to filter nutrients and pollutants (Shire of Waroona, 2022).

Under section 51O(4) of the EP Act the CEO must also have regard to any planning instrument or other matter that the CEO considers relevant. 'Other matters' are not defined in the EP Act, and consequently are any matters the CEO considers relevant. If the approval for the identified purpose is not granted, it would be unnecessarily harmful to the environment for DWER to authorise native vegetation clearing when such clearing may not be required.

The Applicant advised the Department that they did not believe a Development Approval was required for the proposed clearing due to the planned use for agricultural purposes and did not intend on submitting an application to the Shire. On 8 March 2024, the Shire of Waroona confirmed that the Applicant had not submitted a Development Application.

#### **Water Allocation – Harvey Water / DWER**

While it is noted that the application area is located within the Murray Groundwater Area (UFI 42) proclaimed under the *Rights in Water and Irrigation Act 1914* (RiWI Act) (DWER-037, DWER-034), the applicant has an operating licence under the Harvey Water Irrigation Scheme. The property is within the Harvey Main Drain and Waroona Drain sub catchment areas of the Harvey River catchment area (Harvey Water, 2023).

Harvey Water advised that non-potable water is drawn from local dams through a licensing agreement with DWER and delivered through gravity flow in a network of channels and pipes to the various properties within Harvey, Waroona and Collie. The applicant is noted to have a 110 megalitre water entitlement, between his properties within the Harvey and Waroona districts. Manual metering will occur once a quarter, whereby data will be extracted from a data logger on the pipeline delivering water to the applicant's property (Harvey Water, 2023). The applicant has advised that he has the flow rate capacity to pump 25 litres per minute from the pipeline (DWER, 2023a) and will supply his grazing and pasture activities on the property.

RiWI Water Licensing branch advised that the construction of a well and take of groundwater for non-domestic purposes, such as irrigation of pasture for grazing of an area greater than 0.2 hectares, would require a licence from the DWER. There are no existing licences to take water on the property and no licence applications have been received for the proposal to date (DWER, 2023c).

#### **Aboriginal Heritage**

No Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972 (WA)* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

#### **DWER Site Inspection – 2 November 2023**

On 2 November 2023, Delegated Officers from DWER's Native Vegetation Regulation (NVR) branch attended the property and met with the applicant and his environmental consultant (Accendo). The site inspection was undertaken to further inform the assessment and decision-making process.

The application area was observed to be predominantly *Kunzea* thicket with occasional *Banksia* and *Allocasuarina* in the southern section, with more dominant *Banksia* and *Allocasuarina* in the western section. Vegetation condition ranged from good to degraded in the *Kunzea* dominated area and degraded elsewhere. Vegetation was confirmed to not be representative of the *Banksia* woodland TEC.

The applicant advised that all suitable foraging habitat would be retained and only *Kunzea* and dead standing vegetation would be cleared. The applicant confirmed he would plant marri trees to account for the removal of vegetation.

DWER Officers discussed with the applicant and the environmental consultant that the revegetation area would need to be fenced and further recommend the fencing of the REW to protect riparian vegetation. It was also discussed that the immediately adjacent area on the southern boundary of the application area, would be required to be fenced off as this area contains better-quality native vegetation. Fencing would prevent grazing by livestock to ensure the

condition of the vegetation is not degraded further. The applicant was in agreeance with these recommendations at the time of the inspection.

**End**

## Appendix A. Additional information provided by applicant

Reference	Description of information (in timeline order)
Harewood (2022)	Applicant provided a response to first further information request, providing a <i>Black Cockatoo Habitat Assessment</i> , undertaken on 10 April 2022, which supports the clearing permit application CPS 9523/1. Received 25 May 2022 (DWER Ref: DWERDT608348).
Plantecology (2023)	Applicant provided a response to second further information request, providing a <i>Detailed Flora and Vegetation Survey</i> , undertaken on 8 October 2022, which supports the clearing permit application CPS 9523/1. Received by DWER 28 February 2023 (DWER Ref: DWERDT742025).
Accendo (2023b)	Applicant advises DWER they would like to revise the application area from 5.95 hectares to 3.88 hectares. Applicant also provides DWER quantification of suitable black cockatoo foraging habitat within the application area. Received by DWER 3 August 2023 (DWER Ref: DWERDT820223).

## Appendix B. Details of public submissions

Summary of comments	Consideration of comment
<b>Submission 1</b>	
<u>Avoidance and mitigation</u>	
The application fails to demonstrate any attempt to reduce the extent and impact of clearing. No proposal to retain any significant individual trees or stands of trees.	See section 3.1. Avoidance and Mitigation measures and Appendix E for the Applicant's proposed avoidance and mitigation measures including management plans.
An ecological linkage is located ~300 metres away. The application area provides remnant vegetation as a buffer to this linkage within a highly fragmented and cleared landscape.	See section 3.2.1. The applicant has committed to revegetation on the property.
Clearing should not be permitted or be altered accordingly to retain suitable trees for threatened black cockatoo species. (i.e. jarrah, marri and other foraging flora sources)	See section 3.1. The applicant has committed to retaining all suitable foraging species and habitat trees.
The proposal does not state any current or planned protection of the remnant sumpland that is categorised as a priority wetland, including from cattle access. The wetland should be fenced.	See section 3.3.4. The applicant has committed to a 30 metre buffer to the resource enhancement wetland and to fence the area to prevent access by livestock.
<u>Remnant vegetation</u>	
The two regional vegetation complexes present are below 30 per cent (18 per cent and 28 per cent remaining). Recent and ongoing livestock grazing should not be used as reason to justify mechanical clearing of the entire vegetation, particularly for a vegetation complex clearly at risk from over-clearing and underrepresentation in the Reserve system.	See section 3.2.3. for an assessment on the remnant vegetation.
<u>Errors in supporting information</u>	
There are several fundamental errors within the supplementary information sources of Accendo (2021) that affect the assessment of values. For example, * <i>Casuarina equisetifolia</i> may be misidentified by Accendo (2021) as an alien species. The species depicted and mapped is likely the native <i>Casuarina fraseriana</i> .	* <i>Casuarina equisetifolia</i> was misidentified by Accendo (2021), A flora and vegetation survey consistent with the <i>Environmental Protection Authority's Technical Guidance</i> (EPA, 2016a) was later undertaken by Plantecology (2023), which is discussed in section 3.2.2 above.
Accendo (2021) state that four conservation significant orchid species potentially occur however no survey has been undertaken. Reasons cited are recent grazing and lack of understorey and midstorey species. Accendo (2021) assert that <i>Kunzea glabrescens</i> occurs as a monoculture with little understorey and as such assess the vegetation as degraded to completely degraded. This may be a misinterpretation as <i>Kunzea</i> dominated vegetation may naturally lack a diverse understorey	A flora and vegetation survey was later undertaken by Plantecology (2023), which determined that the proposed clearing area would not likely contain conservation significant flora species

Summary of comments	Consideration of comment
<p>and recent grazing as a form of clearing should not negate or justify the need for determining whether these conservation significant species remain present.</p> <p>Any application should not be granted until a survey be undertaken at the appropriate time of year for four conservation significant orchid species with flora correctly identified by a qualified botanist.</p>	
<p>A targeted fauna survey was not undertaken and the site clearly contains foraging resources for three threatened black cockatoo species.</p> <p>Mature Marri and Jarrah are present and an assessment for their current and future use as habitat trees for Black Cockatoos should be undertaken.</p>	<p>A fauna likelihood analysis was undertaken by the Department, a black cockatoo habitat assessment has been undertaken (Harewood, 2022) and DBCA (2023) have also provided advice on what fauna may inhabit the application area, which is discussed in section 3.2.1 above.</p>
<b>Fauna</b>	
<p>Three species of threatened black cockatoo species are present and habitat occurs over the application area. Even if the understorey is determined to be degraded, the overstorey provides important foraging resources for black cockatoos and living trees have the potential to form hollows large enough for black cockatoos.</p>	<p>A black cockatoo habitat assessment has been undertaken (Harewood 2022). Foraging habitat has been considered in section 3.2.1. The canopy was assessed for foraging habitat regardless of the understorey.</p>
<p>The main reason for threatened black cockatoo decline is the destruction of their habitat. It is critical that any remaining habitat is protected.</p>	<p>A black cockatoo habitat assessment has been undertaken (Harewood 2022). Foraging, roosting and breeding habitat has been considered in section 3.2.1.</p>
<p>A large number of species that black cockatoos use for foraging are considered near threatened. Prescribed burns are more frequent and hotter and climate change is having an impact with wildfires more common. Trees crucial to black cockatoo survival must be retained.</p>	<p>A black cockatoo habitat assessment has been undertaken (Harewood 2022). Foraging, roosting and breeding habitat has been considered in section 3.2.1.</p>
<b>Submission 2</b>	
<p>Since suitable habitat is present for the three endangered black cockatoos the clearing should not be permitted at all or be altered accordingly to retain suitable trees i.e. jarrah, marri and other foraging flora sources etc.</p>	<p>The applicant has committed to retaining all suitable black cockatoo breeding and foraging habitat. See section 3.2.1.</p>

## Appendix C. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix D.

### C.1. Site characteristics

Characteristic	Details
Local context	<p>The application area is located within the Swan Coastal Plain IBRA Bioregion, (SWA) of Thackway and Cresswell (1995). The application area will be utilised for grazing and pasture after clearing and is located within the municipality of the Shire of Waroona, approximately nine kilometres west of Waroona and 100 kilometres south of Perth.</p> <p>Aerial imagery and spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 9.28 per cent of the original native vegetation cover.</p>
Ecological linkage	<p>The remnant vegetation within the application area has a link to an axis line mapped under the South West Regional Ecological linkages Dataset.</p>

Characteristic	Details
Conservation areas	The proposed clearing is not located within a mapped conservation area. The nearest is the Buller Nature Reserve is located approximately 2.20 kilometres to the south of the application area.
Vegetation description	<p>The proposed clearing is mapped within the Southern River Complex which is described as:</p> <ul style="list-style-type: none"> <li>• Open woodland of <i>Corymbia calophylla</i> (Marri) <i>Eucalyptus marginata</i> (Jarrah) and Banksia species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along creek beds.</li> </ul> <p>This is not consistent with the vegetation mapped during surveys. A detailed flora and vegetation survey was undertaken by Plantecology (2023) and indicates the vegetation within the proposed clearing area consists of:</p> <ul style="list-style-type: none"> <li>• <i>Allocasuarina fraseriana</i> – <i>Banksia attenuata</i> Woodland - Woodland of <i>A. fraseriana</i> and <i>B. attenuata</i> over a grassland of pasture species including *<i>Bromus diandrus</i> and *<i>Ehrharta longiflora</i> on grey sands;</li> <li>• <i>Eucalyptus marginata</i> – <i>Banksia attenuata</i> Woodland - Woodland of <i>E. marginata</i>, <i>B. attenuata</i> and <i>A. fraseriana</i> over an open shrubland of <i>Xylomelum occidentale</i> and <i>Leucopogon australis</i> over a grassland of pasture species including *<i>Ehrharta longiflora</i> and *<i>Briza maxima</i> on grey sands; and</li> <li>• <i>Kunzea glabrescens</i> Tall Shrubland - Tall shrubland of <i>Kunzea glabrescens</i> with emergent <i>Banksia ilicifolia</i> and <i>Nuytsia floribunda</i> over a grassland of *<i>Ehrharta longiflora</i> on grey sands.</li> </ul> <p>Harewood (2022) undertook a black cockatoo habitat assessment over the application area and described:</p> <ul style="list-style-type: none"> <li>• A Sheoak (<i>Casuarina fraseriana</i>) open woodland with occasional scattered banksia spp. and very occasional Jarrah (<i>Eucalyptus marginata</i>), WA Christmas Tree (<i>Nuytsia floribunda</i>), and Woody Pear (<i>Xylomelum pyriforme</i>);</li> <li>• Spearwood (<i>Kunzea glabrescens</i>) tall shrubland with very occasional emergent trees (Jarrah, WA Christmas tree and Woody Pear);</li> <li>• Scattered and small groves of planted non-endemic eucalyptus and flooded gum (<i>Eucalyptus rudis</i>), over a grassland and/or weeds; and</li> <li>• Bare ground/grassland with scattered dead trees/fallen trees.</li> </ul> <p>Representative photographs and the survey excerpts (descriptions and maps) are available in Appendix E.</p>
Vegetation condition	<p>Harewood (2022) described the vegetation condition as highly degraded with all areas appearing to have been subject to considerable disturbance.</p> <p>Plantecology (2023) described the vegetation condition as in a Degraded to Completely Degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>• Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.</li> <li>• Completely degraded: The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.</li> </ul> <p>The vegetation condition was confirmed by a DWER Site Inspection on 2 November 2023, with DWER Officers noting the vegetation was mostly within a Degraded to Completely Degraded (Keighery, 1994) condition, with the exception of a few 'Good' sections within the application area:</p> <ul style="list-style-type: none"> <li>• Good: Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix E. Representative photographs and the survey excerpts (descriptions and maps) are available in Appendix E.</p>

Characteristic	Details
Climate and landform	The Waroona area experiences a dry Mediterranean climate of hot dry summers and cool wet winters. The site is not known to contain any restricted landforms or unique geological features. The property generally occupies the lowest slopes positions in the landscape (CSLC, 2022).
Soil description	A site assessment was undertaken by CSLC (2022). The mapped soils present are Bassendean 1 Subsystem. Map Unit: 212Bs_1: <ul style="list-style-type: none"> <li>Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale-yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 metres.</li> </ul>
Land degradation risk	The proposed clearing is mapped as moderate to high risk of waterlogging and a high to extreme risk of wind erosion, sub-surface acidification and phosphorous export.
Waterbodies	A portion of the application area is mapped within a multiple-use category wetland classified as a palusplain (UFI-15231). Additionally, a resource enhancement wetland is mapped approximately 0.06 km from the proposed clearing.
Hydrogeography	The application area is located within the Coastal Plain Hydrological Zone and the Murray Groundwater area Proclaimed under the RIWI Act.
Flora	There are 76 flora records from 26 flora species in the local area, with the nearest record being from <i>Caladenia speciosa</i> (Priority 4). There are four species which are found on the same soil type as the application area.  The flora and vegetation survey (Plantecology, 2023) found no conservation significant flora species within the application area.
Ecological communities	Six ecological communities of conservation significance have been mapped within ten kilometres of the application area. The proposed clearing is mapped within the 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' ecological community which is listed as Priority 3 in Western Australia and Endangered under the EPBC Act.
Fauna	A total of 11 birds, eight mammals, one reptile and two invertebrates of conservation significance have been recorded from within ten kilometres of the application area, two of which are recorded within one kilometre of the proposed clearing, namely: <ul style="list-style-type: none"> <li><i>Oxyura australis</i> (blue-billed duck) (P4) – 0.62 km</li> <li><i>Isoodon fusciventer</i> (quenda) (P4) – 0.74 km</li> </ul> The application area is located within the distribution of three threatened black cockatoo species: Carnaby's Cockatoo ( <i>Zanda latirostris</i> ), Baudin's Cockatoo ( <i>Zanda baudinii</i> ) and the Forest Red-tailed Black Cockatoo ( <i>Calyptorhynchus banksii naso</i> ). Two known roosts and five known breeding sites are mapped within the local area (10 km radius)  The black cockatoo habitat Assessment (Harewood, 2022) found evidence of black cockatoos foraging within the application area, however, was assessed to be 'low quality' foraging habitat.

## C.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current percentage remaining within all DBCA managed land (%)
IBRA Bioregion*					
Swan Coastal Plain	1,501,222	579,814	38.6%	222,917	38.45%
Vegetation Complex**					
Southern River Complex (42)	58,781	10,832	18.43%	940	1.60%
Local area (10 km)					
Remnant vegetation	31,165	3,077	9.28%		

\*Government of Western Australia (2019a)

\*\*Government of Western Australia (2019b)

**C.3. Fauna analysis table**

With consideration for the site characteristics set out above, relevant datasets (see Appendix G.1), the habitat preferences, distribution and extent of existing records, and biological survey information (Accendo, 2021, Harewood, 2022), the application area may provide suitable habitat for six conservation significant fauna species and impacts to these species required further consideration (see section 3.2.1 above).

Species	Status	No. records	Closest record	Habitat present?	Likelihood	
<b>Birds</b>						
Carnaby's Cockatoo	<i>Calyptorhynchus latirostris</i>	EN	174	1,444	Yes	Likely
Baudin's Cockatoo	<i>Calyptorhynchus baudinii</i>	EN	8	8,201	Yes	Potential
White-tailed Black Cockatoo	<i>Calyptorhynchus</i> sp. 'white-tailed black cockatoo'	EN	6	8,704		Potential
Forest Red-tailed Black Cockatoo	<i>Calyptorhynchus banksii naso</i>	VU	72	1,918	Yes	Likely
<b>Mammals</b>						
Quenda	<i>Isodon fusciventer</i>	P4	31	739	Marginal	Likely
Western Brush Wallaby	<i>Notamacropus irma</i>	P4	2	2,742	Marginal	Potential

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

**C.4. Ecological community analysis table**

Common ID	Common Name	Status (WA)	Status (EPBC Act)	Closest record
Banksia WL SCP	Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	P3	EN	Within application area

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

**C.5. Land degradation risk table**

Risk categories	Proportion of application area	Land Unit 1
Wind erosion	90%	50-70% of map unit has a high to extreme wind erosion risk
	10%	10-30% of map unit has a high to extreme wind erosion risk
Waterlogging	90%	3-10% of map unit has a moderate to very high waterlogging risk
	10%	>70% of map unit has a moderate to very high waterlogging risk
Sub-surface acidification	100%	>70% of map unit has a high subsurface acidification risk or is presently acid
Phosphorous export	100%	>70% of map unit has a high to extreme phosphorus export risk

**Appendix D. Assessment against the clearing principles**

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>While the application area (3.88 hectares) contains significant foraging habitat for black cockatoos and ecological linkage values within a highly cleared landscape, the applicant has committed to retain all suitable foraging habitat within the proposed clearing area (totalling 1.52 hectares).</p> <p>Additionally, while the application area is within a mapped <i>Banksia Woodlands TEC and State listed Priority 3 'Banksia dominated woodlands of the Swan Coastal Plain'</i>, the vegetation in application area is in a predominately degraded condition and found not to be representative of a TEC (Plantecology,</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>



Assessment against the clearing principles	Variance level	Is further consideration required?
2023, DBCA, 2023, DWER 2023b). No conservation significant flora species were identified within the application area (Plantecology, 2023, DWER 2023b).		
<p><u>Principle (b):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</i></p> <p><u>Assessment:</u></p> <p>While the application area contains primary and secondary foraging habitat for black cockatoos, the applicant has committed to retain all suitable foraging habitat within the proposed clearing area (totalling 1.52 hectares). Notwithstanding the above, the proposed clearing may sever ecological linkage values within an extensively cleared landscape.</p>	At variance	Yes  <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is unlikely to contain threatened flora species listed under the BC Act. The detailed flora and vegetation survey did not identify any threatened flora species (Plantecology, 2023).</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>While the application area is within a mapped <i>Banksia Woodlands TEC</i>, the majority of the vegetation in within application area is in a degraded to completely degraded (Keighery, 1994) condition and found not to be representative of a TEC (Plantecology, 2023, DBCA, 2023, DWER 2023b).</p>	Not likely to be at variance	Yes  <i>Refer to Section 3.2.2, above.</i>
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the mapped vegetation complex and native vegetation in the local area is less than the national objectives and targets for biodiversity conservation in Australia, with only 9.28 per cent of remnant native vegetation retained in the local area (ten-kilometre radius of the application area).</p>	At variance	Yes  <i>Refer to Section 3.2.3, above.</i>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>The application area does not intersect any DBCA managed lands and given the distance to the nearest conservation area, which is over 2.20 kilometres away, the proposed clearing is not likely to have an impact on the environmental values of any conservation areas.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p>	At variance	Yes  <i>Refer to Section 3.2.4, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
<p>A portion of the application area intersects a DBCA Geomorphic a Multiple Use Wetland (palusplain) (UFI-15231), and a REW sumpland (UFI-4806) is located within 60 metres of the application area. Therefore, the application area may contain vegetation growing in, or in association with, an environment associated with a watercourse. Given the number of wetlands recorded within or close to the application area, the proposed clearing may impact on- or off-site hydrology and water quality.</p>		
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>Advice from the Commissioner of Soil and Land Conservation is that the proposed clearing activities are not likely to cause appreciable land degradation in the form of eutrophication, acidification and wind erosion (CSLC, 2022).</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.5, above.</i>
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p> <p>No natural watercourses intersect the application area. The northern portion of the application area is located within a seasonally waterlogged palusplain with seasonally inundated sumpland within 60 metres of the application area.</p> <p>Advice from the Commissioner of Soil and Land Conservation is that the proposed clearing activities are not likely to cause appreciable land degradation in the form of eutrophication. Therefore, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.5, above.</i>
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The mapped land degradation risk for flooding potential over the application area is rated at low. The application area is not located within any annual exceedance probability (AEP) floodplains. Noting the location and extent of the application area proposed clearing is not likely to cause, or exacerbate, the incidence or intensity of flooding.</p>	Not likely to be at variance	No

**Appendix E. Vegetation condition rating scale**

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation’s ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

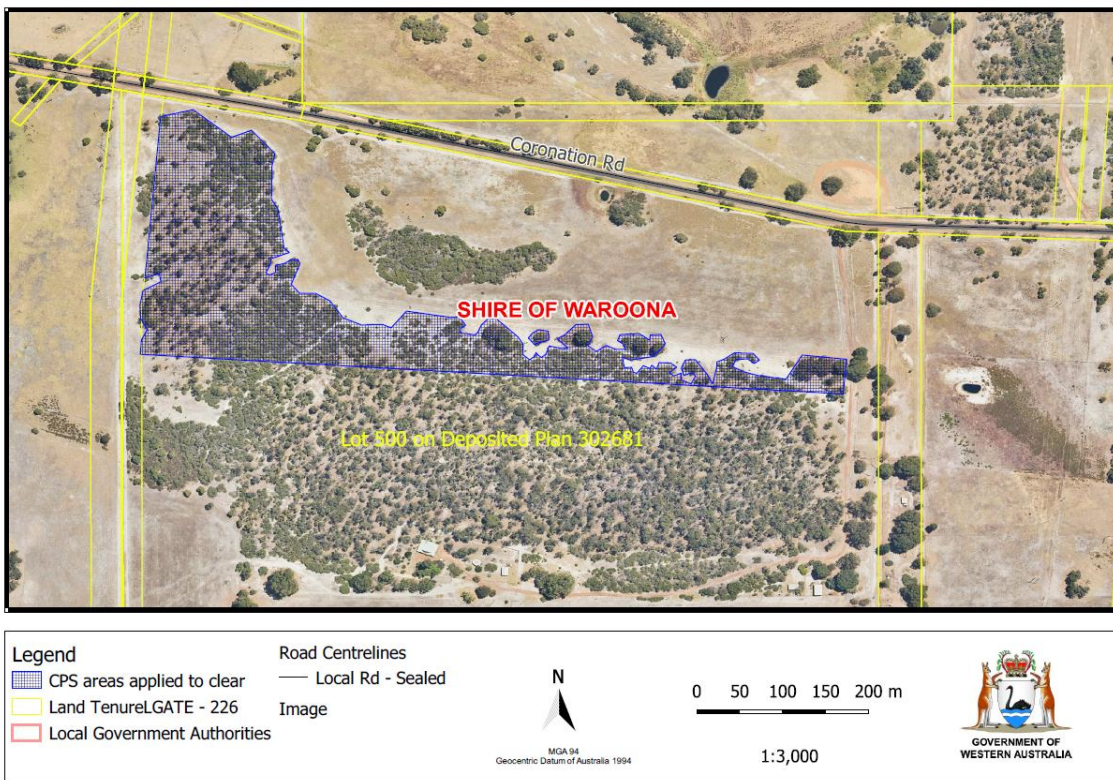
Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

**Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)**

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.

Condition	Description
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

**Appendix F. Biological survey excerpts / representative photographs of the vegetation**



**Figure 2.** Original application area (Accendo, 2021)

Excerpts from Supporting information for CPS 9523/1 (Accendo, 2021)



Plate 1: Spearwood (*Kunzea glabrescens*) with understorey absent.



Plate 2: Spearwood (*Kunzea glabrescens*) with understorey absent.



Plate 3: *Casuarina equisetifolia* with very occasional *Banksia* spp.



Plate 4: *Casuarina equisetifolia* with very occasional *Banksia* spp. and *Corymbia calophylla*



Plate 5: *Casuarina equisetifolia* with very occasional *Banksia* spp. and *Corymbia calophylla*

**Figure 3.** Representative photographs of the vegetation within the proposed clearing area (Accendo, 2021)

Excerpts of Environmental Management Plans, from Supporting Information for CPS 9523/1 (Accendo, 2021)

Table 6. Vegetation clearing management plan.

Vegetation Clearing	
<b>Responsibility</b>	
<ul style="list-style-type: none"> <li>Project Manager.</li> <li>Contractors.</li> </ul>	
<b>Objectives</b>	
<ul style="list-style-type: none"> <li>Prevent clearing outside of the designated clearing boundaries.</li> <li>Minimise soil erosion and sedimentation.</li> </ul>	
<b>Potential Impacts</b>	
<ul style="list-style-type: none"> <li>Clearing native vegetation.</li> <li>Inadvertent additional clearing of vegetation.</li> <li>Impacts on fauna species.</li> <li>Weed and disease invasion.</li> </ul>	
<b>Management Strategies</b>	<b>Timing</b>
<ul style="list-style-type: none"> <li>All site personnel will be inducted on the clearing controls for this project.</li> <li>Vegetation required to be removed will be marked with white flagging tape to avoid any unnecessary disturbance to adjacent vegetation.</li> <li>The flagging tape which demarcates subject site will be checked on a daily basis to ensure that the clearing requirements remain clearly visible.</li> <li>No movement of vehicles or personnel within the vegetation retention areas will be allowed.</li> <li>No stockpiling of topsoil or other material is to occur outside of the clearing boundary.</li> <li>The location and area of vegetation cleared will be checked on a daily basis.</li> </ul>	<ul style="list-style-type: none"> <li>Prior to clearing.</li> <li>Prior to clearing.</li> <li>During clearing.</li> <li>During clearing.</li> <li>During clearing.</li> <li>During clearing.</li> </ul>
<b>Performance Indicators</b>	
<ul style="list-style-type: none"> <li>No unauthorised clearing is undertaken.</li> <li>No fauna is directly impacted during clearing.</li> </ul>	
<b>Monitoring</b>	
<ul style="list-style-type: none"> <li>Daily checks to ensure that clearing is consistent with the approved clearing boundaries.</li> <li>Daily checks to ensure that no fauna have been impacted.</li> </ul>	
<b>Reporting</b>	
<ul style="list-style-type: none"> <li>The DWER will be notified immediately if clearing beyond the approved clearing boundaries occurs, or if any fauna is directly impacted. Work may be stopped and the site inspected by DWER or LGA and a remedy determined before work restarts.</li> <li>A review of the performance indicators will be undertaken upon completion of clearing to determine the success of the vegetation clearing management measures. Where non-compliances are identified the DWER will be notified accordingly.</li> </ul>	

Table 7. Fauna management plan.

Species of conservation significance	
<b>Responsibility</b>	
<ul style="list-style-type: none"> <li>• Project Manager.</li> <li>• Contractors.</li> </ul>	
<b>Objectives</b>	
<ul style="list-style-type: none"> <li>• Minimise direct and indirect impacts to species of conservation significance during clearing.</li> <li>• Long term preservation of species of conservation significance within the subject site.</li> </ul>	
<b>Potential Impacts</b>	
<ul style="list-style-type: none"> <li>• Direct impacts to species of conservation significance during clearing activities.</li> </ul>	
<b>Management Strategies</b>	<b>Timing</b>
<ul style="list-style-type: none"> <li>• Clearing will be undertaken as per Section 4.1.2.</li> <li>• The following clearing protocols will be implemented to avoid impacts to species of conservation significance:                             <ul style="list-style-type: none"> <li>○ Immediately prior to any clearing commencing a qualified expert will undertake a pre-clearing inspection of the clearing zone and nearby areas to confirm the location of tree hollows currently or likely to be occupied by Black Cockatoos, Chuditch and Western False Pipistrelles and mark these trees as necessary.</li> <li>○ The suitably qualified expert will be onsite when clearing is being undertaken. The qualified expert should also have a current authorisation to take or disturb threatened species from the Minister for Environment or delegate under section 40 of the BC</li> </ul> </li> </ul> <p>operators which areas of the subject site are more sensitive in relation to the presence of species of conservation significance and the techniques and approaches that will need to be employed during the clearing operations. An agreed means of communication between the operators and the qualified expert will be established prior to clearing commencing to ensure the safety of the species of conservation significance. Operators will be required to abide by this agreed means of communication at all times.</p> <ul style="list-style-type: none"> <li>○ The qualified expert will be present on the subject site to direct clearing operators, particularly when clearing trees are occupied by species of conservation significance to ensure that these are cleared in a way that allows the animals to safely mobilise to adjacent areas. In addition, they will supervise any animal handling and the rescue of injured animals should this be required.</li> <li>○ In the event that a species of conservation significance is observed in a tree that is about to be cleared and there is a tree/area marked for retention near the tree which is to be cleared then the tree will be gently lowered to the ground to enable the animal to safely evacuate. The animal/s will be encouraged to move towards and occupy the trees to be retained.</li> <li>○ If operators encounter injured species of conservation significance during clearing then the qualified expert will make arrangements for the care and welfare of the injured animals.</li> </ul>	<ul style="list-style-type: none"> <li>• During clearing.</li> <li>• Prior to and during clearing.</li> </ul>
<ul style="list-style-type: none"> <li>• In relation to the qualified expert, the following requirements need to be met:                             <ul style="list-style-type: none"> <li>○ They need to have appropriate equipment to administer emergency care to any injured or displaced animals.</li> <li>○ They need to have a suitable care facility of their own or have made prior arrangements with an appropriate carer who can rehabilitate any injured animals.</li> <li>○ They need to be able to recognise suitable habitat for species of conservation significance adjacent to the clearing.</li> <li>○ They need to have demonstrated capture and animal handling experience.</li> <li>○ They need to be authorised under section 40 of the BC Act.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Prior to clearing.</li> </ul>
<b>Performance Indicators</b>	
<ul style="list-style-type: none"> <li>• Environmental induction and species of conservation significance clearing protocols implemented.</li> <li>• No species of conservation significance deaths occur during clearing activities.</li> <li>• Disturbance on site is limited to the approved trees.</li> </ul>	
<b>Reporting</b>	
<ul style="list-style-type: none"> <li>• The DWER will be notified immediately if clearing beyond the approved clearing boundaries occurs, or if any individuals are directly impacted.</li> <li>• A report prepared by the qualified expert will be provided to DWER to advise on implementation of this plan and report on species of conservation significance observed and or handled.</li> </ul>	




Table 8. Weed and pathogen management plan.

Phytophthora dieback and weed management	
<b>Responsibility</b>	
<ul style="list-style-type: none"> <li>• Project Manager.</li> <li>• Contractors.</li> </ul>	
<b>Objectives</b>	
<ul style="list-style-type: none"> <li>• To prevent the introduction and spread of <i>Phytophthora</i> dieback and weeds within the subject site.</li> </ul>	
<b>Potential Impacts</b>	
<ul style="list-style-type: none"> <li>• Introduction and spread of disease (<i>Phytophthora</i> spp.) and weeds.</li> </ul>	
<b>Management Strategies</b>	<b>Timing</b>
<ul style="list-style-type: none"> <li>• Training will be provided to all personnel during the safety and environment induction course. This will include an explanation of the specific requirements relating to <i>Phytophthora</i> dieback management.</li> <li>• All earthmoving and ground engaging equipment will be inspected and cleaned of vegetation and soil prior to entry and exit of the subject site.</li> <li>• Access to the subject site during clearing will be restricted to the proposed roads and driveways. No other access points should be established. The access location and vehicle inspection point should be clearly sign posted.</li> <li>• As far as practicable, onsite drainage shall be designed to contain runoff from building envelopes and roads within disturbed areas.</li> <li>• Reduce vehicle and plant movement into and within the site as much as possible, particularly during wet conditions.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to clearing.</li> <li>• Prior to clearing.</li> <li>• Prior to and during clearing.</li> <li>• Prior to and during clearing.</li> <li>• During clearing.</li> </ul>
<b>Performance Indicators</b>	
<ul style="list-style-type: none"> <li>• Hygiene procedures are adopted during clearing activities.</li> </ul>	
<b>Monitoring</b>	
<ul style="list-style-type: none"> <li>• Project Manager will ensure disease hygiene and control measures are implemented during clearing activities.</li> </ul>	
<b>Reporting</b>	
<ul style="list-style-type: none"> <li>• Contractors to confirm that <i>Phytophthora</i> dieback and weed management measures have been implemented.</li> </ul>	

Figure 4. Management Plans for the proposed clearing area (Accendo, 2021)

Excerpts of the Black Cockatoo Assessment (Harewood, 2022)

Fauna Habitat Description	Example Image
Bare ground/grassland with scattered dead trees/fallen trees.	

<p>Sheoak open woodland with occasional scattered <i>banksia</i> spp. and very occasional jarrah WA Christmas tree and woody pear.</p>	 <p>186°S (M) • 50S 389827 6365243 ±4 m ZOOTOPIA 10 Apr 2022 13:02:57</p>
<p>Spearwood tall shrubland with very occasional emergent trees (e.g. jarrah, WA Christmas tree and woody pear)</p>	 <p>109°E (M) • 50S 390172 6365228 ±12 m ZOOTOPIA 10 Apr 2022 13:00:01</p>
<p>Scattered and small groves of planted non-endemic eucalyptus and flooded gum over a grassland and/or weeds.</p>	 <p>274°W (M) • 50S 390173 6365214 ±16 m ZOOTOPIA 10 Apr 2022 12:39:03</p>

**Figure 5.** Example images of the fauna habitats within the survey area (Harewood, 2022)


Foraging Evidence Description	Example Image
<p>Sheoak fruits - foraging activity attributed to Carnaby's or the Forest Red-tailed Black Cockatoo.</p>	





Figure 6. Foraging evidence found within the survey area (Harewood, 2022)

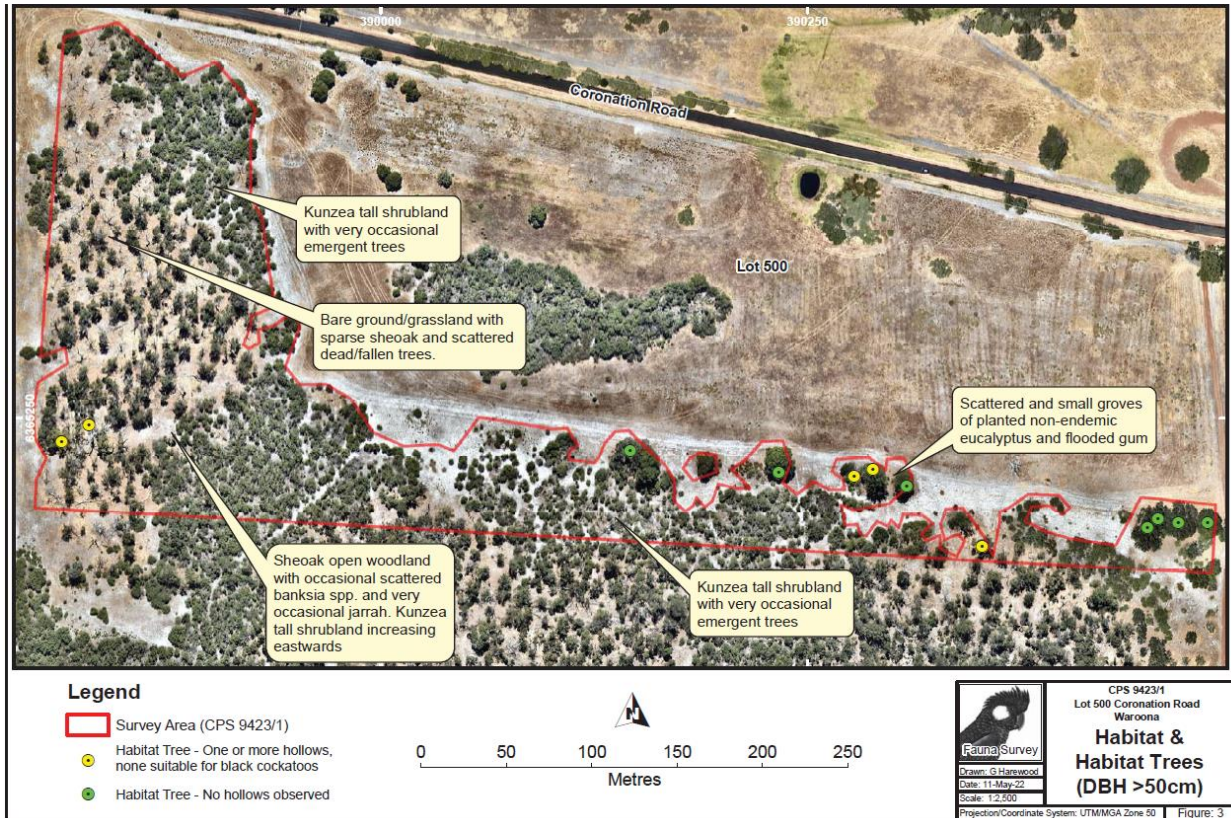


Figure 7. Vegetation types and black cockatoo habitat trees within the survey area (Harewood, 2022)

Habitat Trees  
Datum - GDA94

Entrance Size Ranges - Small = >5cm, Medium = 5 to 10cm, Large = >10cm

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimate Hollow Entrance Size	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt003	50H	390146	6365231	Flooded Gum	15-20	>50	0					Planted
wpt004	50H	390233	6365218	Unknown Eucalypt	15-20	>50	0					Planted
wpt005	50H	390277	6365216	Dead Unknown	15-20	>50	2+	Small	No Signs	No Signs	No	Planted ?
wpt006	50H	390288	6365220	Dead Unknown	15-20	>50	2+	Small	No Signs	No Signs	No	Planted ?
wpt007	50H	390308	6365210	Unknown Eucalypt	15-20	>50	0					Planted
wpt008	50H	390352	6365175	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	
wpt009	50H	390449	6365186	Flooded Gum	15-20	>50	0					Planted
wpt010	50H	390455	6365191	Flooded Gum	15-20	>50	0					Planted
wpt011	50H	390467	6365189	Flooded Gum	15-20	>50	0					Planted
wpt012	50H	390484	6365189	Unknown Eucalypt	15-20	>50	0					Planted
wpt013	50H	389829	6365246	Dead Jarrah	15-20	>50	2+	Small, Medium & Large	No Signs	No Signs	No	Examined with drone - no suitable hollows
wpt014	50H	389813	6365236	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	

Figure 8. Habitat trees assessment, within the survey area (Harewood, 2022)

WPT	Coordinates (MGA 94/Z50)	389829 mE	6365246 mN	Tree Species	Dead Jarrah	Survey Date	10/04/2022
13	Comments	Dead jarrah with a possible side entry hollow and two large spouts. When examined with a drone all of the potential hollows were found to be unsuitable because of being too shallow/non-existent. No evidence of use by fauna of any type.				Classification	Unsuitable/No Hollow.



Figure 9. Black Cockatoo Habitat tree (WPT 13) assessment, within the survey area (Harewood, 2022)

Flora and vegetation survey excerpts (Plantecology, 2023)

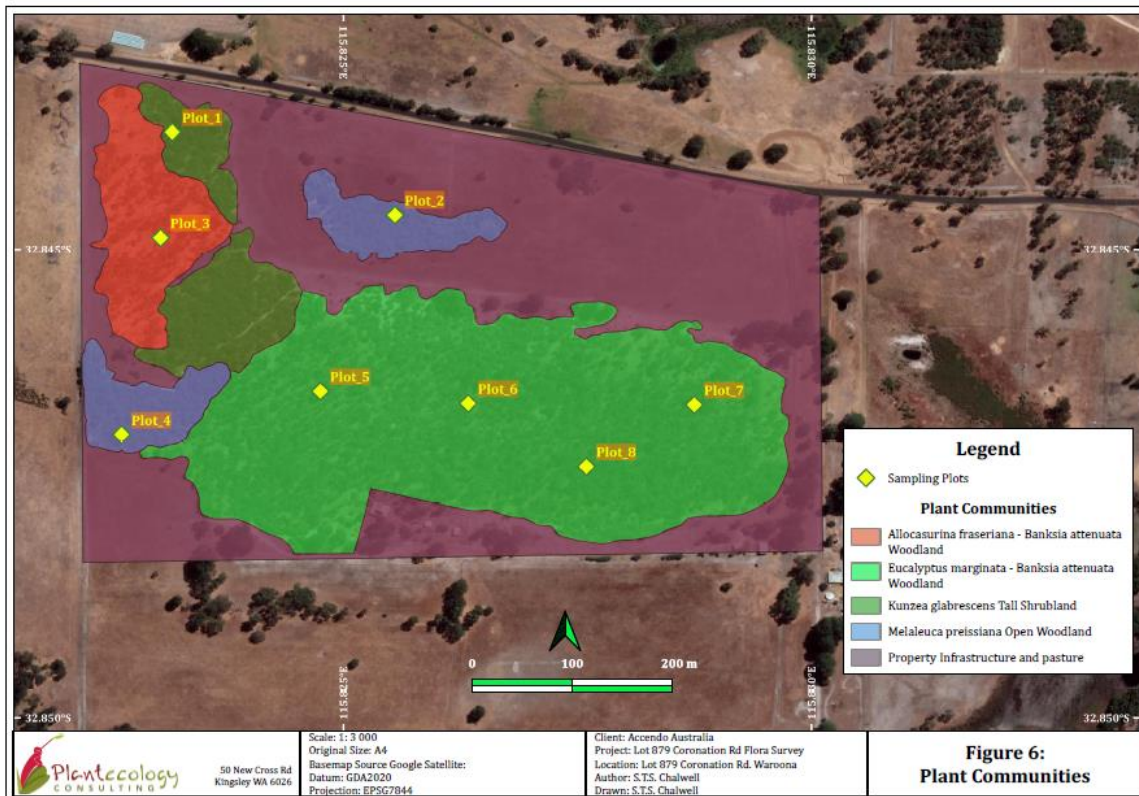


Figure 10. Vegetation types in survey area (Plantecology, 2023)



**Legend**  
Condition Category

- Degraded
- Completely Degraded

**Figure 7:  
Vegetation Condition**

**Figure 11.** Vegetation conditions in survey area (Plantecology, 2023)



**Plate 1:** View of sampling Plot 3: *Allocasuarina fraseriana* - *Banksia attenuata* Woodland in 'Completely Degraded' condition.



**Plate 2:** View of sampling Plot 5: *Eucalyptus marginata* - *Banksia attenuata* Woodland in 'Completely Degraded' condition.



**Plate 3:** View of sampling Plot 8: *Eucalyptus marginata* - *Banksia attenuata* Woodland in 'Completely Degraded' condition.



**Plate 4:** View of sampling Plot 2: *Melaleuca preissiana* Open Woodland in 'Degraded' condition.



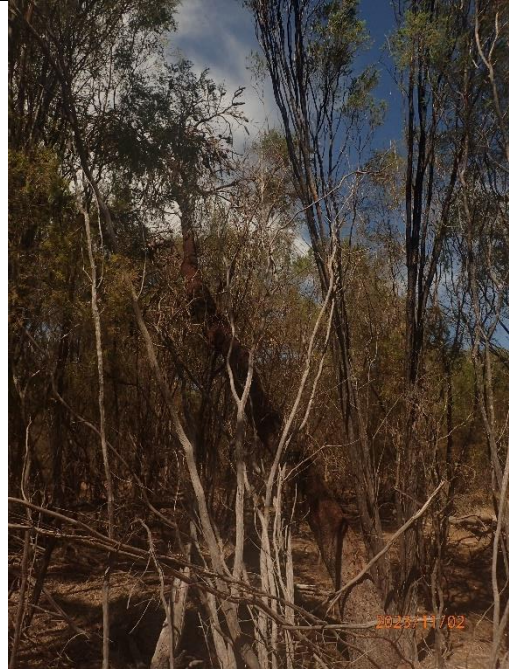
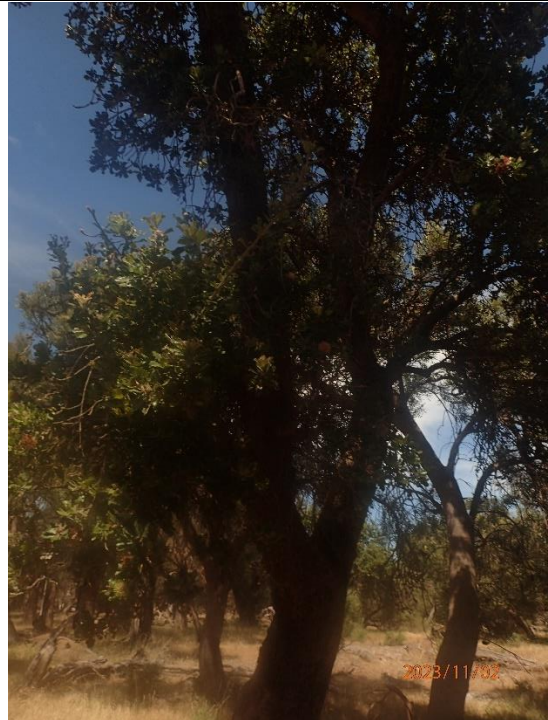
Plate 5: View of sampling Plot 1: *Kunzea glabrescens* Tall Shrubland in 'Degraded' condition.

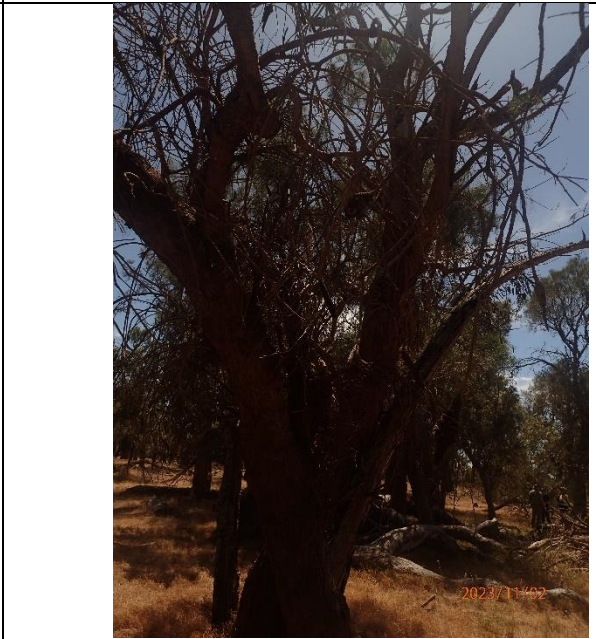
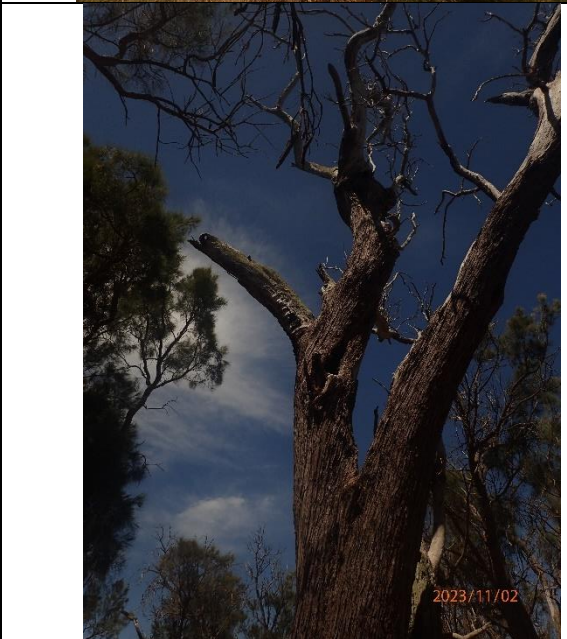
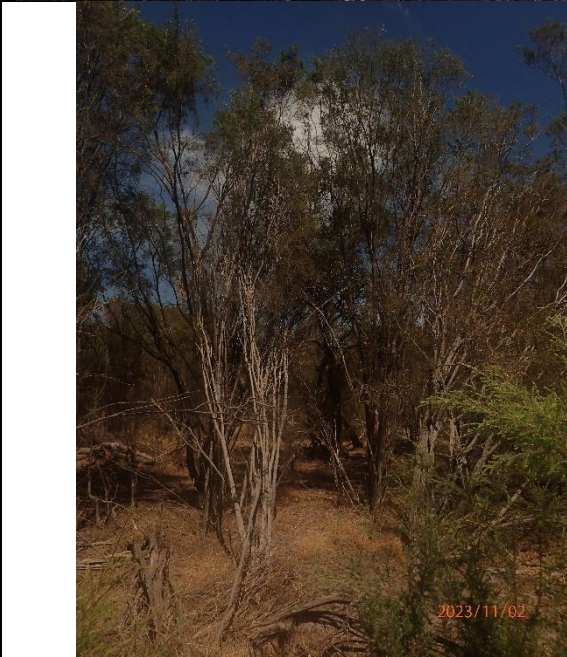
Figure 12. Photographs of the vegetation sampled in the flora and vegetation survey (Plantecology, 2023)

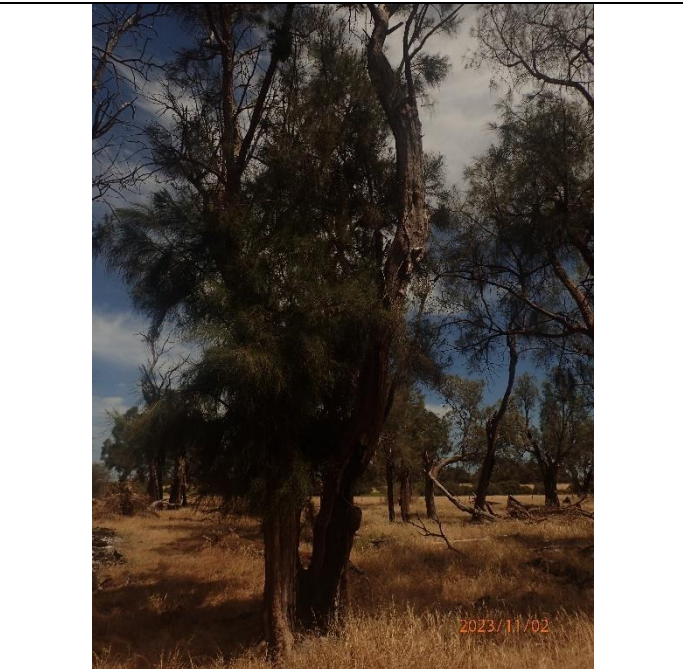
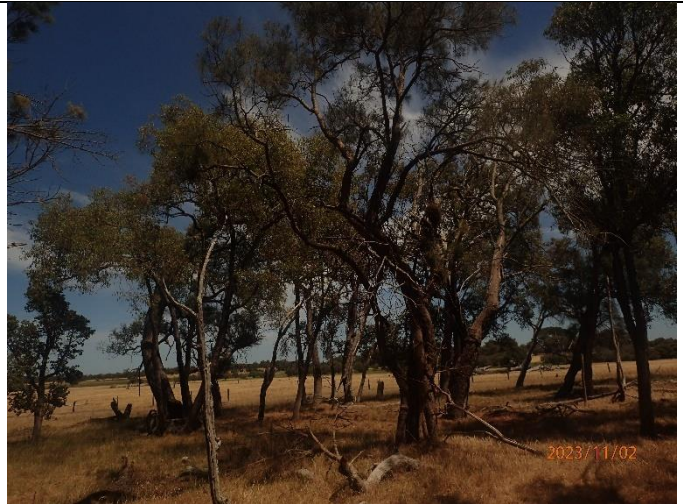
**Appendix G. DWER site inspection photographs**

The following photographs were taken by DWER Officers on the site inspection, 2 November 2023:











## Appendix H. Sources of information

### H.1. GIS databases

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- DBCA draft Wetland Evaluation Swan Coastal Plain
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons



- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

## H.2. References

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- Accendo Australia (Accendo) on behalf of the applicant (2023) Applicant advises of revised of application area and quantifies black cockatoo foraging habitat within the application area. Received by DWER 3 August 2023 (DWER Ref: DWERDT820223).
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- Department of Water and Environmental Regulation (DWER) (Regulatory Services – Water) (2023b) *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 9523/1*, received 30 August 2023 (DWER Ref: DWERDT873072 and DWERDT873076).
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